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in Galway, where he was buried. The soldiers appointed to shoot him missed fire three times, and strange to say, the individual by whom he was finally shot was, as Lodge familiarly tells us—a corporal blind of an eye!

The son of Sir Tibbot was restored to his estates, consisting of 50,000 acres, in the county of Mayo, in 1666,—but the property was sold by his brother Miles, who succeeded him in the title. Since the death of the last viscount, which occurred in 1767, the title has lain dormant.

Shrnel is remarkable for its handsome modern Roman Catholic chapel, and the ruins of a very ancient church, called after one of the numerous Saints Colman. The town is now the property of Patrick Kirwan, of Dalgin, Esq., whose house is one of the finest in the county.

P.

VITAL HEAT AND PHOSPHORESCENCE.

THERE are few natural phenomena, that excite more general, daily, and ever varying remarks, than the temperature of the atmosphere, as affects our sense of feeling either of heat or cold. And yet how few observe, that Providence has empowered the animal system to resist to a great extent, the injurious influence of either. Heat and cold are considerable agents in the operations of nature. Brute or inert matter submits freely to the absorption and radiation of heat, not having it in any quantity as peculiar to itself. Not so the organized bodies of man, animals and plants, which have a temperature so regulated, that they are enabled to resist the vicissitudes of climate, within certain, though extended limits. Food, respiration, and the action of the nervous system, are the requisites for this wonderful property in the animal economy. By respiration—the blood, while traversing the lungs, receives warmth from the air inhaled, which is submitted to decomposition, and having acquired a portion of heat, carries it through the body to the extremities, which, being farther from the centre of heat, consequently receive less from any one blood vessel; but as their surface is considerable relative to their mass, a greater proportional quantity of blood vessels in these parts preserves their temperature more equal than might be imagined. Heat is a vivifying principle, maintaining the vital powers necessary for the support of animal life, and the energy of the brain. Ninety-eight degrees of Fahrenheit is the ordinary temperature of our bodies; sixty-two is the mean temperature of this climate; hence any body lower than ninety-eight degrees gives a momentary sensation of cold, which does not last, as the generating power is more than adequate to supply the deficiency. Active exercise, by promoting a more rapid circulation, carries the blood from the lungs, the centre of heat, in a shorter time, and imparts a greater proportion of warmth to the system in a given space. Various coverings of wool or fur, by preventing the radiation of heat, preserve the inhabitants of Canada and Nova Zembla uncomplaining, through a temperature so low that when the sun sinks beneath the horizon, the white fox alone endures the cold. Man's activity is aroused by his wants; and while the hunter's moon illumines the dreary waste of snow, he kills or snares the animals, whose skins he either barter for some necessities of life, supplied by the European trader, or uses as a shelter from the severity of the season. Thus, the supplying of his absolute wants administers to his comforts; and Providence has wisely ordained, that the acquiring what is requisite for him, tends to excite the energy of his frame. The heat of the body is more regular under the effects of cold; yet there is a point at which this generating power must yield—sense and mobility gradually become less—torpor is produced—then appears the collapse of sleep—the vital powers are extinguished—and death ensues. Animals not provided with means for guarding against severe cold are gifted by their Creator with instinct to flee from it, and seek a more genial and sunny clime. Some hibernating animals, in a season that would be injurious to them, become torpid, and experience a temporary death; the covering of others is increased and thickened—all different means tending to one point, the preservation of their life. The power of resisting heat though real is not so great. Men have died in the torrid zone when the thermometer reached one hundred and twenty-two degrees; however, a peculi-

arity of constitution and atmosphere might have great effect. *Franklin, to whom science is so much indebted, found that resistance to elevated temperature proceeds from a more rapid evaporation from the lungs and skin, just as the Alcarrazes, porous vessels, used in India, for preserving liquids cool, maintain their efficacy while the surface is moist and evaporation ensues rapidly.* Delaroché ascertained, that such was the fact, with respect to living beings: he placed animals in an elevated temperature, saturated with moisture to such an extent, that no evaporation from their bodies could take place, they immediately evinced serious distress, and would have died in a short time. Boerhaave and others denied that man and the warm-blooded animals were capable of enduring external warmth, greater than the internal heat of their bodies; but this has been refuted so evidently, that the doctrine is now overthrown. Birds possess the greatest degree of internal heat—one hundred and eleven Fahrenheit; those animals in the class mammalia, particularly the smaller ones, approximate to birds, but with greater liability to change. Cold-blooded animals endure heat badly. Edwards found that frogs die in water at one hundred and seven degrees; yet a species of tape worm has been found alive in the body of a boiled carp, which however will live in water so hot as human blood. It has been already shown, that the germs of many insects will undergo great change of temperature, and that vegetables have a heat peculiar to themselves. When the sheath of the arum maculatum bursts, and the cylindrical part appears; twelve of them placed round the bulb of the thermometer evolve warmth sufficient to raise the mercury from seventy-nine to one hundred and forty-three degrees. Insects, beside their heat, present luminous and phosphorescent appearances; the ocean, when at night exhibiting in warm climates a phenomenon that attracts the eye of the mariner, from its beauty and novelty, is found to owe its brilliancy to animalculæ floating on its surface. The Eleta Noctilucus, or fire fly, a species of beetle, is so vividly bright, that Dr. Smith tells us the beaux of Italy exhibit their gallantry by adorning the hair of their mistresses with this artificial ornament. The light emitted from the cucuij is so bright, that the smallest print may be read by moving one of these insects along the page. In the Spanish West India Isles the females conduct their household occupations by this living lamp; the men, while travelling, fishing, or hunting, attach one in each great toe and require no other torch; and previous to a public festival held in June, these insects are collected in great numbers and fastened to the garments of the young men and the trappings of their horses. Thus adorned, they present to the eye of the spectator on a dark evening, an effect similar to a large moving body of light, and the uncivilized Indian, as much pleased as the polished Italian with the beauty of the fire fly, testifies also his homage to his dark beauty, by decking her hair and person with these living gems—these stars of the earth, and diamonds of the night.

PHILANTHROPY.

"PHILANTHROPY, my friends, is of no particular sect; it is confined by no paltry form of rule; it knows no distinction, but that of the happy or unhappy; it is older than the gospel, eternal as that great source from whence it springs, and often beats higher in the heathen's heart, than in those of many who are called Christians; who, though under the influence of the most benevolent of all possible systems, yet not unfrequently refuse both relief and compassion to the petitions of the wretched, and the entreaty of the unhappy. God forbid that the genuine feelings of humanity were confined to this or that mode of faith! God forbid that any ridiculous prejudice should hinder me from reverencing the man, (however we may differ in speculative notions,) whose gentle spirit flies out to sooth the mourner; whose ear is attentive to the voice of sorrow; whose pittance is shared with those who are not the world's friends; whose bountiful hand scatters food to the hungry, and raiment to the naked; and whose peaceful steps, as he journeyeth on his way, are blessed, and blessed again by the uplifted eye of thankful indigence, and the sounds of honest gratitude from the lips of wretchedness."

DEAN KIRWAN.